

# WISCONSIN'S JOB OUTLOOK 2005-2007

## INDUSTRY OUTLOOK

**Total nonfarm employment** in Wisconsin is expected to increase 2 percent between 2005 and 2007. Including self-employed and unpaid family workers, employment is expected to increase by 59,900 jobs, rising from 3,061,600 in 2005 to 3,121,500 in 2007. Most of the new jobs, or 90 percent, are in the service-providing sector. The remaining 6,100 newly created jobs are in the goods-producing sector.

Within the goods-producing sector, most of the increase is in the construction industry. **Construction** is expected to add 5,500 new jobs, growing at a rate of 4.2 percent. The fastest growing segment of construction is specialty trade contractors, increasing 4.7 percent and adding 3,900 new jobs.

**Manufacturing** is expected to add 670 jobs. All of these are in durable goods manufacturing, which is increasing by 1,700 jobs at a rate of one-half of one percent. Nondurable goods manufacturing is projected to lose nearly 1,000 jobs.

Nearly half of the new jobs expected in the service-producing sector are in **education and health services**, which includes state and local government employment in hospitals and education. Of the 23,200 newly created jobs in this industry group, 8,100 are in education. The remaining 15,200 new jobs are in healthcare and social assistance, which accounts for more than one in four new jobs in the state.

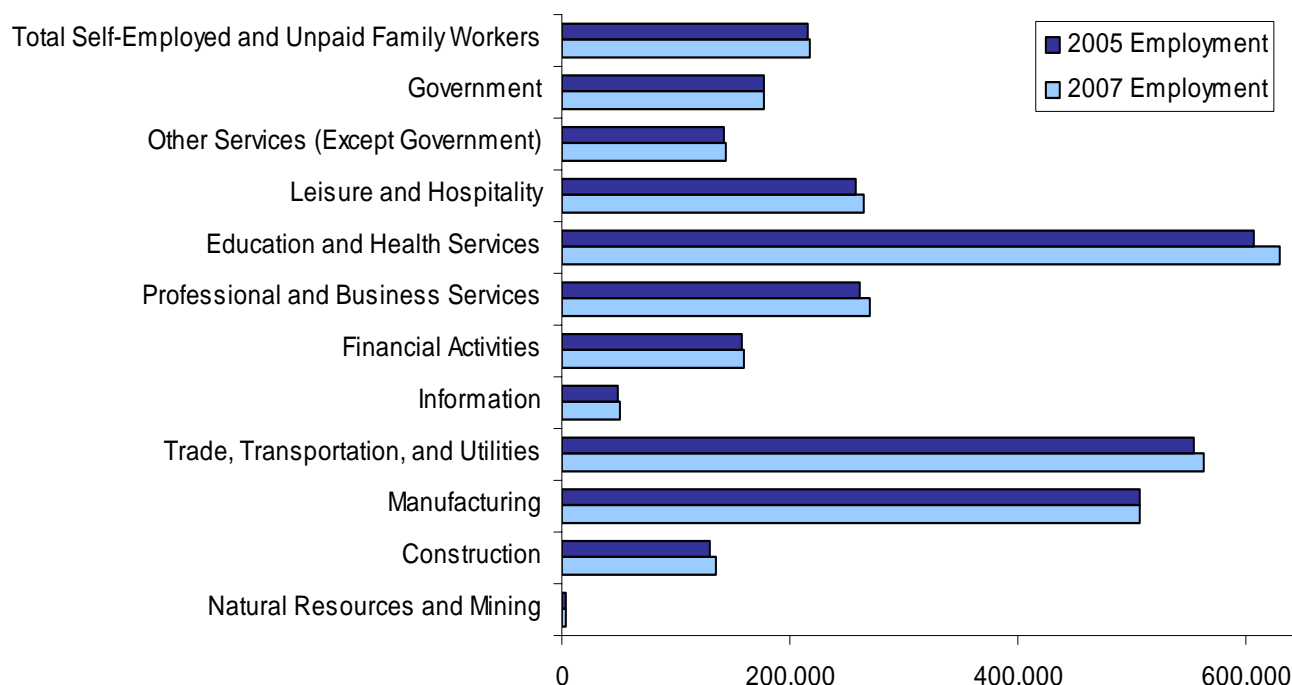
**Trade, transportation and utilities** is

expected to increase slower than the state as a whole, adding 7,900 new jobs while increasing 1.4 percent. Wholesale trade makes up nearly half of these new jobs, adding 3,600 jobs while increasing 3.1 percent. Retail trade, while nearly three times the size of wholesale trade, is expected to add 2,700 new jobs which represents an increase of nine-tenths of one percent.

**Transportation and warehousing** is projected to add 1,900 new jobs. 890 of these positions are in truck transportation, and another 450 in warehousing and storage. Utilities are expected to lose 320 positions, with employment declining 2.8 percent.

Employment in **information** is expected to grow 1.2 percent, for an increase of (continued on next page)

### Industry Employment in 2005 and 2007



(continued from first page) 590 jobs. Publishing (+520 jobs) and ISPs, web search portals, and data processing services (+390 jobs) contribute the most to this growth while telecommunications and (-350 jobs) and broadcasting, except internet (-50 jobs) are both declining.

**Financial activities** are projected to add 900 new jobs over the two-year period. Finance and insurance are expected to add 310 of those jobs, while the remaining 590 are in real estate and rental and leasing.

Increases in **professional and business services** are expected to add 8,600 new jobs. Of these openings, 6,000 will be in administrative and support services, which includes temporary help services. The remaining jobs are in professional, scientific and technical services (+1,660 jobs) and management of companies and enterprises (+900 jobs).

**Leisure and hospitality** will continue to see employment increases, adding 8,300 new jobs between 2005 and 2007. Most of these new jobs are in food services and drinking places,

which is expected to add 6,400 new positions. The remaining new jobs are in accommodation (with 1,130 new jobs) and arts, entertainment and recreation (+770 new jobs).

**Other services, except government**, are expected to add 2,300 new jobs, and **government** will add 870 new jobs. All of the government jobs are in local government, which includes tribal government. State and federal government employment are both expected to decline (postal service employment is included in transportation).

## OCCUPATIONAL OUTLOOK

**Wisconsin** is expected to have 209,000 job openings between 2005 and 2007. Seven out of every ten openings will result from a replacement opening, or an opening due to a person permanently leaving that occupation on account of retirement or illness or for another job. The remaining 59,900 openings are the result of newly created jobs. Those new jobs correspond to a two percent increase in total employment.

**Professional and related occupations**, including computer, legal, science, education, and healthcare practitioner occupations, are expected to make up nearly one-third of total new jobs. Increasing at a rate of 3.2 percent, this group will add 18,600 new jobs with an additional 39,600 replacement openings. In the chart to the right, this group of occupations has the most new jobs.

**Service occupations** are expected to have the greatest number of openings overall, with 56,000 over the two years. This group consists of healthcare support, protective service, food prep, and personal care occupations. Of the openings, 18,000 are from new jobs while

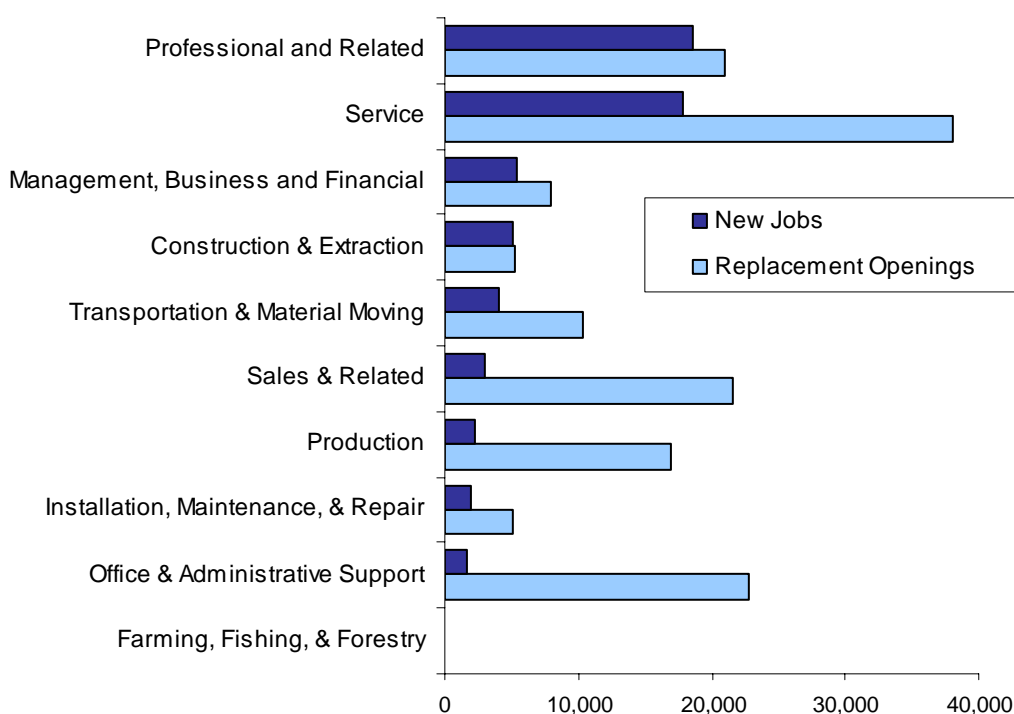
another 38,000 are due to replacements.

**Management, business and financial occupations** are expected to add 5,500 new positions through 2006 and 2007, increasing at a rate of 2.2 percent. An added 8,000 openings are the result of replacement needs.

**Construction and extraction occupations** will have a projected 5,200 new jobs over the two-year period. This group of occupations is the fastest growing, increasing at a rate of 3.5 percent. In addition to the newly created positions, there will be another 5,200 job openings due to replacements.

(continued on next page)

**Number of New Jobs and Replacement Openings by Major Occupation Group, 2005-2007**



(continued from page 2)

**Transportation and material moving occupations** are expected to gain 4,100 jobs as this group increases 1.8 percent. A further 10,400 openings are due to replacements.

**Sales and related occupations** are projected to have 2,900 newly created jobs. Another 21,600 openings are due to replacements. In this group, replacement openings make up nearly 9 out of

every 10 openings.

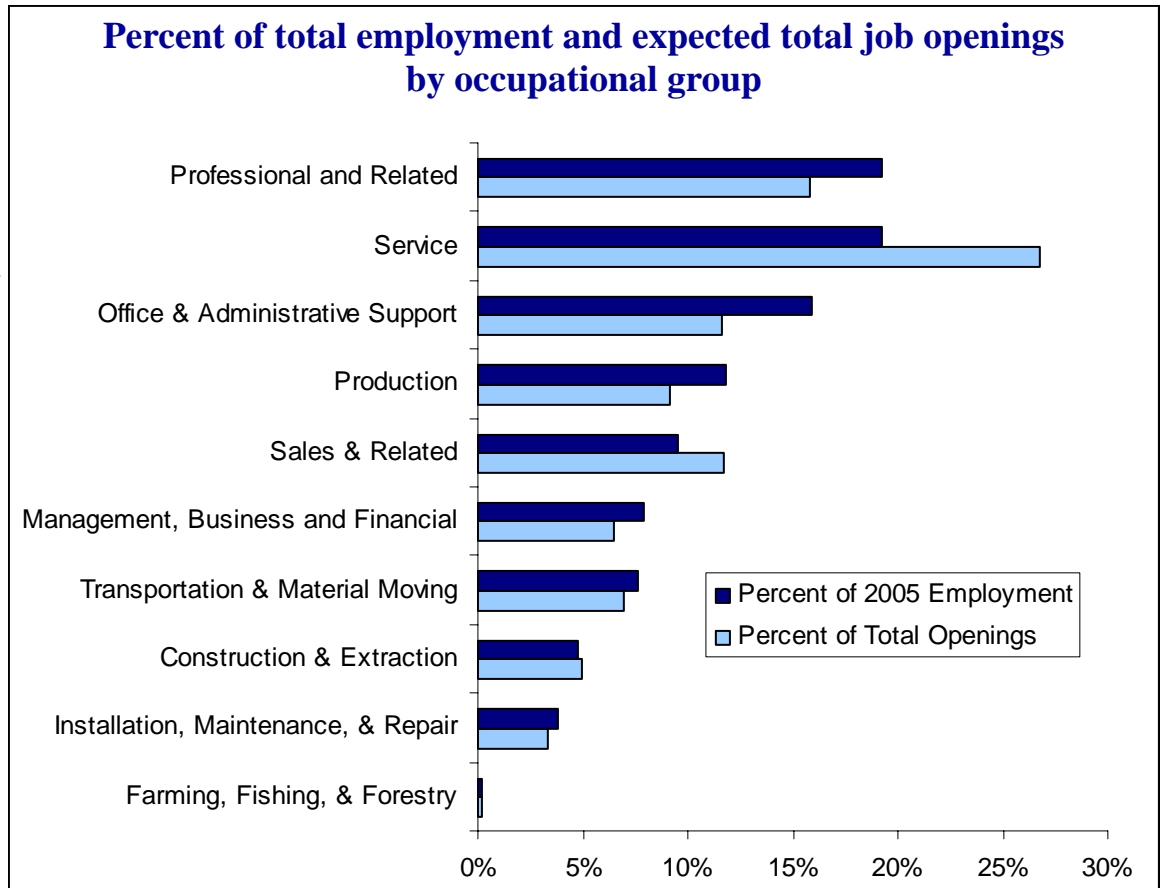
**Production occupations** are expected to have 2,200 new jobs, with an additional 16,900 openings due to replacement needs. **Installation, maintenance, and repair occupations** are expected to have 1,900 new jobs and 5,000 replacement openings.

**Office and administrative support occupations** are expected to have

1,700 new jobs between 2005 and 2007. This group is projected to have the second largest number of replacement openings with 22,700.

**Farming, fishing and forestry occupations** is the smallest occupational group, and therefore also has the smallest number of openings. There are an expected 300 openings overall, with 80 due to new jobs and the remaining 220 from replacement needs.

In the chart to the right, the different occupational groups are shown. The dark blue bar represents the percentage of total employment that each occupational group makes up. The lighter blue bar corresponds to the percentage of total openings from each group. Only three groups, service; sales and related; and construction and extraction occupations have a higher percentage of openings than employment. Professional and related; production; and office and administrative support occupations have the largest percent of employment versus openings.



## EDUCATION AND TRAINING

**Training and education requirements** for occupations fall into eleven different categories (see the chart on the next page). The category represents the most common way to enter a given occupation, though it is important to note that it is not the only way.

The greatest number of openings is in occupations requiring **short-term on-the-job training**, or training at the workplace of less than one month. This

group makes up one of every two openings in the state. Of these openings, 84 percent (92,000) are due to replacement openings. The high percent of replacement openings represent the ease with which a person can transfer in and out of the occupations in this group.

Occupations requiring **moderate-term on-the-job training** (training at the workplace of one to twelve months)

make up the second largest group in openings. Of this group's 46,900 openings, 81 percent (38,100) are due to replacements.

The education and training category with the third largest number of openings is occupations requiring a **bachelor's degree**. This group accounts for nearly 20 percent of all openings, with a total of 40,700 over the two year period. (continued on next page)

(continued from page 3) Sixty-eight percent of the openings are due to replacement needs. The remaining 12,900 openings are from newly created positions.

The remaining job openings are split between the other eight training categories. Jobs requiring **long-term on-the-job training** (training at the workplace of one or more years) have the largest number of the remaining openings. Occupations requiring a **doctoral degree** are growing the fastest—increasing 4.8 percent—but make up the smallest group, with only 1,300 new jobs and 2,600 replacement openings. Occupations which typically re-

quire an **associate degree** is the second-fastest growing group, increasing 3.4 percent and adding 2,700 new jobs.

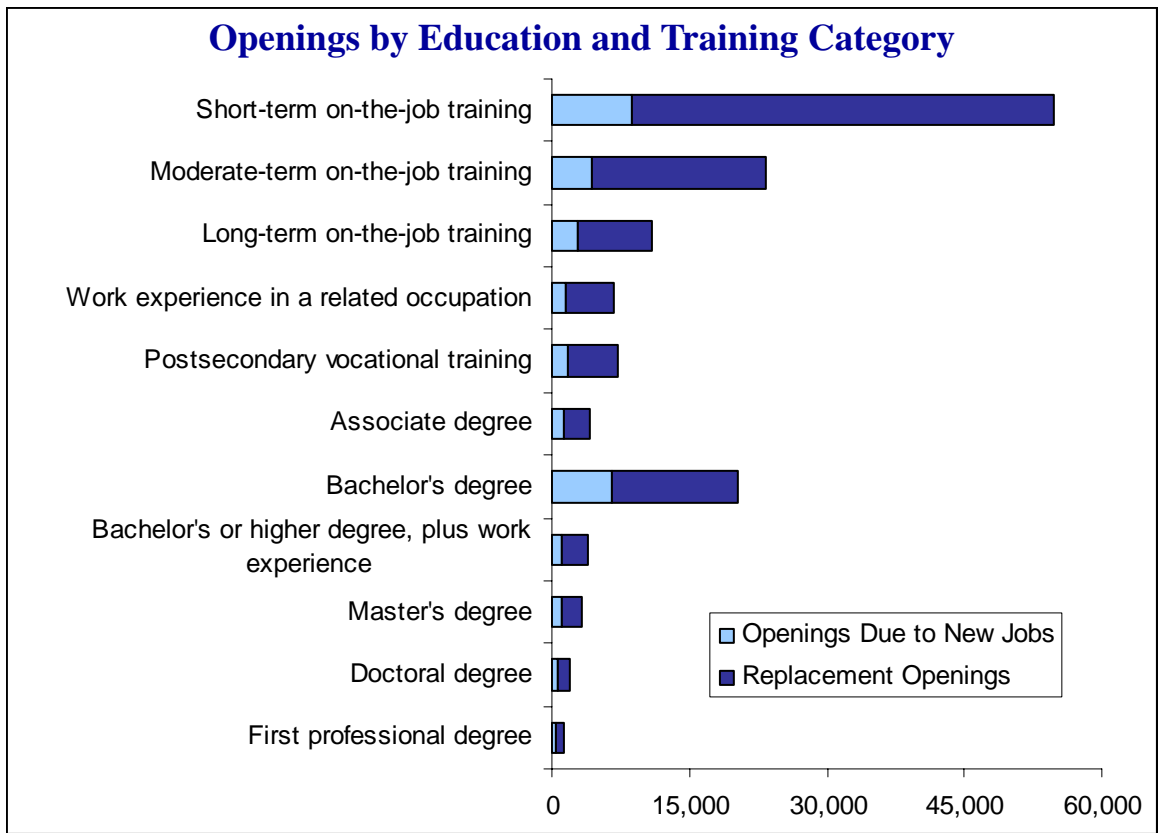
Occupations requiring a **professional degree** (such as a pharmacist, doctor, or lawyer) have the smallest number of openings, 2,500 over the two years. Occupations requiring a **master's degree** are expected to increase three percent, with 6,600 total job openings.

In occupations requiring a **bachelor's degree or higher, plus work experience**, there are an estimated 2,100 new jobs and 5,600 replacement openings. These occupations require both a

college degree, plus experience working in a related occupation.

**Postsecondary vocational training** is required for the group of occupations adding 3,500 new jobs. This group requires one to two years of training at a technical college or vocational school and has an additional 10,800 openings due to replacement needs.

**Work experience in a related occupation** is the final training category. Occupations in this group are often supervisory workers. These occupations are expected to add 2,840 new jobs, with an additional 10,640 openings due to replacement needs.



In the chart to the left, openings are shown for each of eleven education and training categories. The full bar represents total openings. The lighter blue is openings due to new jobs, and the dark blue is openings due to replacements. For all occupations, replacement openings make up 71 percent of all openings. That percentage ranges from a high of 84 percent of occupations requiring short-term on-the-job training to a low of 65 to 66 percent, for occupations requiring a doctoral or associate's degree (respectively).

Information is derived using the 2005 OES Survey, 2005 QCEW and 2005 CES (3/05 Benchmark) data. Unpublished data from the US Bureau of Labor Statistics and US Census Bureau was also used.

To the extent possible, the projections take into account anticipated changes in Wisconsin's economy during 2006 and 2007. It is important to note that unanticipated events may affect the accuracy of these projections.

Source: Department of Workforce Development, Office of Economic Advisors  
August 2006  
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# Top Occupations by Education/Training Category

For each of the education/training categories, the ten occupations with the most annual openings are given. Only occupations with an annual wage above the state average of \$35,759 were included in these lists. Continued on the next page.

SOC Code	Occupation Title	2005	2007	Total Annual Openings	Average Annual Salary
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## Beyond a Bachelor's Degree (professional, doctoral, or master's degree, or a minimum of a bachelor's degree plus work exp)

11-1021	General & Operations Managers	28,690	29,360	820	\$95,592
21-2011	Clergy	11,840	11,980	310	\$41,919
21-1021	Child, Family, & School Social Workers	6,380	6,620	220	\$41,885
21-1012	Educational, Vocational, & School Counselors	5,060	5,250	210	\$45,040
19-3021	Market Research Analysts	4,720	4,840	180	\$62,462
19-3031	Clinical, Counseling, & School Psychologists	4,390	4,540	170	\$63,443
29-1051	Pharmacists	4,620	4,770	170	\$91,417
11-9111	Medical & Health Services Managers	4,690	4,850	160	\$78,368
11-3021	Computer & Information Systems Managers	4,750	4,910	160	\$91,560
11-2022	Sales Managers	5,020	5,170	160	\$96,607

## Bachelor's Degree

29-1111	Registered Nurses <sup>(6)</sup>	48,900	51,320	2,120	\$55,060
25-2021	Elementary School Teachers, Except Special Education	31,690	32,560	1,060	\$45,031
25-2031	Secondary School Teachers, Except Special & Vocational Education	26,680	27,300	1,020	\$45,459
13-2011	Accountants & Auditors	22,960	23,560	700	\$57,547
25-2022	Middle School Teachers, Except Special & Vocational Education	16,620	16,930	480	\$44,375
15-1031	Computer Software Engineers, Applications	8,160	8,760	370	\$70,386
15-1051	Computer Systems Analysts	11,310	11,730	320	\$62,910
17-2141	Mechanical Engineers	7,200	7,370	290	\$62,754
13-1023	Purchasing Agents, Except Wholesale, Retail, & Farm Products	7,940	8,070	250	\$48,350
15-1081	Network Systems & Data Communications Analysts	4,190	4,550	220	\$56,789

## Associate Degree

15-1041	Computer Support Specialists	8,780	9,050	230	\$38,897
29-2034	Radiologic Technologists & Technicians	4,190	4,390	170	\$46,916
29-2021	Dental Hygienists	4,460	4,730	170	\$54,203
17-3023	Electrical & Electronic Engineering Technicians	3,250	3,300	90	\$45,020
29-1126	Respiratory Therapists	1,480	1,550	90	\$47,309
17-3026	Industrial Engineering Technicians	1,690	1,750	60	\$40,798
23-2011	Paralegals & Legal Assistants	2,680	2,750	60	\$41,414
31-2021	Physical Therapist Assistants	1,240	1,300	50	\$38,342
19-4031	Chemical Technicians	1,140	1,150	40	\$38,530
17-3022	Civil Engineering Technicians	1,900	1,900	40	\$42,505

## Postsecondary Vocational Training

29-2061	Licensed Practical & Licensed Vocational Nurses	11,070	11,260	320	\$36,842
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	5,760	5,940	230	\$36,184
17-3013	Mechanical Drafters	3,780	3,840	130	\$42,888
29-2055	Surgical Technologists	2,150	2,260	90	\$40,055
13-2021	Appraisers & Assessors of Real Estate	1,920	1,990	80	\$44,965
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	2,040	2,090	70	\$40,309
41-9022	Real Estate Sales Agents	2,540	2,570	70	\$51,163
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	3,060	2,970	60	\$48,174
17-3011	Architectural & Civil Drafters	1,350	1,340	40	\$41,017
49-3011	Aircraft Mechanics & Service Technicians	1,120	1,140	40	\$49,219



# Top Occupations by Education/Training Category

Continued from page 4

SOC Code	Occupation Title	2005	2007	Total Annual Openings	Average Annual Salary
<b>Job Experience in a Related Occupation</b> (requires skills and experience gained from other jobs)					
43-1011	First-Line Supervisors/Managers of Office & Administrative Support Workers	25,870	26,020	580	\$44,263
51-1011	First-Line Supervisors/Managers of Production & Operating Workers	23,040	23,320	580	\$49,886
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	29,300	29,140	480	\$37,999
47-1011	First-Line Supervisors/Managers of Construction Trades & Extraction Work-	11,370	11,770	370	\$60,702
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, & Repairers	8,920	9,070	280	\$54,939
11-9051	Food Service Managers	6,310	6,460	180	\$40,405
53-1031	First-Line Supervisors/Managers of Transportation & Material-Moving Machine & Vehicle Operators	4,860	5,000	180	\$52,468
41-1012	First-Line Supervisors/Managers of Non-Retail Sales Workers	8,570	8,620	180	\$74,395
25-1194	Vocational Education Teachers, Postsecondary	3,320	3,480	150	\$56,686
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, & Material Movers, Hand	4,200	4,270	130	\$43,287

## Long-Term on-the-job training (one year or more of training at the workplace)

47-2031	Carpenters	34,160	35,490	1,170	\$38,602
47-2111	Electricians	13,710	14,170	480	\$47,298
51-4041	Machinists	13,860	14,170	470	\$36,206
47-2152	Plumbers, Pipefitters, & Steamfitters	9,920	10,340	430	\$52,075
33-3051	Police & Sheriff's Patrol Officers	10,740	10,870	330	\$44,433
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	6,070	6,410	240	\$39,795
47-2211	Sheet Metal Workers	4,810	4,990	200	\$44,323
49-9041	Industrial Machinery Mechanics	6,980	7,040	160	\$42,137
47-2021	Brickmasons & Blockmasons	3,940	4,100	130	\$48,083
49-9052	Telecommunications Line Installers & Repairers	2,610	2,680	110	\$37,089

## Moderate-Term on-the-job training (one to twelve months of training at the workplace)

53-3032	Truck Drivers, Heavy & Tractor-Trailer	55,060	56,330	1,460	\$36,797
41-4012	Sales Reps, Wholesale & Manufacturing, Except Technical & Scientific Products	34,380	35,410	1,410	\$57,978
41-4011	Sales Reps, Wholesale & Manufacturing, Technical & Scientific Products	7,700	7,970	340	\$67,950
47-2073	Operating Engineers & Other Construction Equipment Operators	7,600	7,840	310	\$43,669
47-2051	Cement Masons & Concrete Finishers	4,470	4,700	200	\$37,515
51-5023	Printing Machine Operators	8,010	8,020	190	\$35,902
47-2081	Drywall & Ceiling Tile Installers	1,890	1,960	80	\$41,030
41-3011	Advertising Sales Agents	3,120	3,160	80	\$41,833
47-2041	Carpet Installers	2,040	2,070	50	\$37,408
47-2071	Paving, Surfacing, & Tamping Equipment Operators	1,140	1,190	50	\$42,911

## Short-Term on-the-job training (one month or less of training at the workplace)

43-5061	Production, Planning, & Expediting Clerks	7,320	7,410	220	\$38,840
43-5052	Postal Service Mail Carriers	7,030	6,990	210	\$43,255
43-5053	Postal Service Mail Sorters, Processors, & Processing Machine Operators	3,880	3,860	90	\$41,705
51-2031	Engine & Other Machine Assemblers	*	*	60	\$38,051
43-5051	Postal Service Clerks	1,240	1,230	30	\$46,585